PRELIMINARY AND SHORT REPORTS

EOSINOPHILIC INCLUSION BODIES AND CYTOPLASMIC MASSES IN VERRUCAE*

Their Incidence in 156 Lesions Consecutively Removed

Maurice J. Strauss, M.D., Henry Bunting, M.D. and Joseph L. Melnick, Ph.D.

In a previous communication the writers (1) reported the presence of spherical virus-like particles in crystalline arrangement obtained from suspensions of papillomatous growths of human skin. Eosinophilic intranuclear inclusion bodies and solid or vacuolated cytoplasmic masses in the rete cells were also found in these lesions. The clinical characteristics of the lesions in which these elementary bodies and this histopathologic picture were found indicated that these were common and plantar warts.

No attempt was made in that study to compare the age incidence, location, incidence as to sex or other clinical features with those in verrucae in which neither the characteristic histopathologic findings nor the elementary bodies were found. Such a comparison would have been pointless since the lesions came from several sources and no complete data were available from any one of these sources. This report concerns the incidence of eosinophilic intranuclear inclusion bodies and cytoplasmic masses in 156 verrucae vulgaris and plantaris removed consecutively in the practice of one of us (M.J.S.).

Of 156 verrucae of both types removed from 104 patients, 21 or 13% showed such inclusion bodies and cytoplasmic masses. The greater number of these were found in verrucae plantaris as compared with verrucae vulgaris, the figures being 16 out of 37 plantar warts removed from 30 patients or 43%, and 5 out of 119 common warts removed from 75 patients or 4%. The greater frequency of positive findings in plantar warts may well be explained by the duration of the lesion. Plantar warts, by virtue of their location, cause discomfort and inconvenience earlier than lesions situated elsewhere and therefore will cause the patient to seek their removal at an earlier time. In this series of 156 lesions, the average duration of the lesion at the time of removal was 5.5 months in plantar verrucae and 9.2 months in common verrucae.

Although the approximate duration of the 156 lesions removed varied from less than 1 month to 24 months or more, the characteristic positive findings were present only in lesions the duration of which was less than 9 months: 95% of these were of less than 6 months' duration, and 47% of less than 2 months. This is illustrated by Figure 1 which shows the cumulative percentage curve of the lesions with positive findings, contrasted with a similar curve for the lesions without such findings.

The great majority of the 104 patients were in the first four decades of life. This was true not only of patients with lesions with eosinophilic intranuclear inclusion bodies and cytoplasmic masses but also of those in whose lesions these findings were absent; 16 out of 17 (94%) in the positive, 72 out of 87 (82%) in the negative cases. Figure 2 illustrates this. With Graph I (lesions with positive findings) superimposed on Graph II (lesions with negative findings) it becomes obvious that the lesions yielding these histopathologic findings occurred most frequently in individuals of the same age groups in which the greatest number of common and plantar warts are found. The total number of positive lesions is

---

* From the Division of Dermatology, Section of Preventive Medicine, and Department of Pathology of the Yale University School of Medicine.

Supported by grants from the Fluid Research Fund of the Yale University School of Medicine and from the National Cancer Institute of the National Institutes of Health, U. S. Public Health Service.

Received for publication July 5, 1951

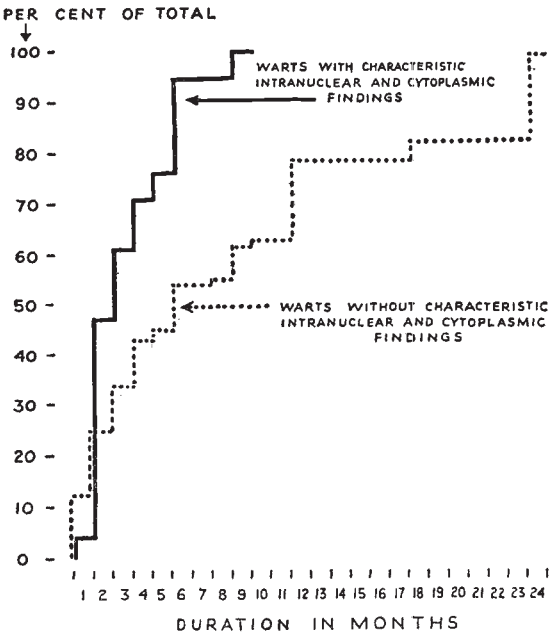

FIG. 1. DURATION OF 156 CONSECUTIVE VERRUCAE STUDIED

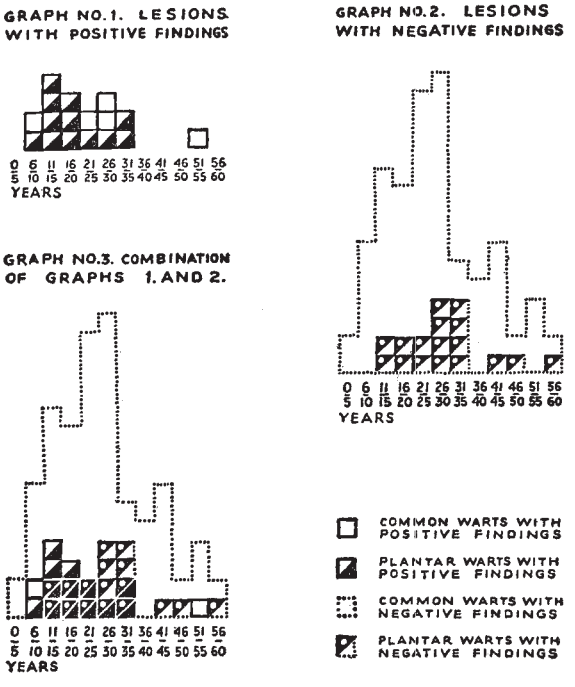

FIG. 2. AGE OF 94 PATIENTS FROM WHOM VERRUCAE WERE REMOVED

too small to be of statistical significance but it is extremely doubtful that the age of the patient has any influence on the presence or absence of these findings.

The lesions with positive findings were divided equally between males and females; the lesions without such findings, almost equally. No other clinical feature has been found in the positive lesions with sufficient frequency so that any importance can be attached to it.

The data presented above suggest that the elementary bodies and histological changes previously described by the writers are found in plantar and common warts. They can be most readily found in plantar warts of short duration.

REFERENCE

1. Strauss, M. J., M.D., Bunting, H., M.D. and Melnick, J. L., Ph.D.: Virus-like particles and inclusion bodies in skin papillomas. J. Invest. Dermat. Vol. 15, No. 6, Dec. 1950.